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Internal combustion engine for motor vehicles has nitrogen oxide purification catalyst comprising active components of manganese, noble metal, rare earth metal, titanium and potassium, on surface of inorganic oxide support

Patent Assignee: HITACHI LTD (HITA)

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Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
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Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001347139	A	15	B01D-053/94	

Abstract (Basic): JP 2001347139 A

NOVELTY - An internal combustion engine (99) comprises a nitrogen oxide purification catalyst (10) which contains an active component on the surface of a support comprising an inorganic oxide. The active component comprises manganese, and noble metal selected from rhodium, platinum and palladium, rare earth metal, titanium and potassium.

DETAILED DESCRIPTION - The internal combustion engine operates with an air fuel ratio diluted than theoretical air fuel ratio, and comprises nitrogen oxide purification catalyst which absorbs and holds nitrogen oxide in the exhaust gas on the surface, and reduces to nitrogen when the air fuel ratio is lean. The catalyst is regenerated when the air fuel ratio switches to the condition of rich or stoichiometric.

INDEPENDENT CLAIMS are also included for the following:

- (a) an exhaust gas purifier of internal combustion engine;
- (b) a control apparatus of internal combustion engine;
- (c) an exhaust gas purification catalyst;
- (d) a motor vehicle; and
- (e) an exhaust gas purification of internal combustion engine.

USE - For motor vehicles (claimed).

ADVANTAGE - Nitrogen oxide contained in the exhaust gas of internal combustion engines is purified efficiently in oxidizing atmosphere. The purification catalyst has high sulfur oxide resistance, heat resistance, and purification ability for a long period of time.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the internal combustion engine equipped with exhaust gas purification catalyst.

Exhaust gas purification catalyst (10)

Internal combustion engine (99)

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Title Terms: INTERNAL; COMBUST; ENGINE; MOTOR; VEHICLE; NITROGEN; OXIDE; PURIFICATION; CATALYST ; COMPRIZE; ACTIVE; COMPONENT; MANGANESE ; NOBLE ; METAL; RARE; EARTH; METAL; TITANIUM; POTASSIUM ; SURFACE; INORGANIC; OXIDE; SUPPORT

Derwent Class: E36; H06; J01; J04; Q51; Q52; X22

International Patent Class (Main): B01D-053/94

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